BRUHAT BENGALURU MAHANAGARA PALIKE

Name of work :IImprovements to roads and Drains at Balaji Layout(from 11th Cross to central excise Layout) and in Basavalingappa Layout at Police Quarters entrance road in Ward No:05

							Estimate		7000000
Sl No	Description of work	No	Dimensions			Quantity	Rate	Unit	Amount
			L	B	D				
1	2	3	4	5	6	7	8	9	10
1	Removing and resetting of foot path slab in cm 1:3 (Page No.265, Item No.37.56)								
	Basic Rate:-	125.00							
	Add 8% Area Weightage	10.00							
	Total:-	**135.00**							
		2	96.00	0.75		144.00			
		2	200.00	0.75		300.00			
					Total	**444.00**	**135.00**	Sqm	**59940.00**
2	*KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications complete as per specificatioMORTH Chapte(* ***P-142, It,-19.2)***								
	Basic Rate	*113.00*							
	Area Weightage 6%	*6.78*							
	Total	***119.78***							
	DRAIN DESILTING	2	96.00	0.45	0.30	25.92			
		2	200.00	0.45	0.30	54.00			
		2	590.00	0.45	0.20	106.20			
		2	160.00	0.45	0.30	43.20			
		2	70.00	0.45	0.20	12.60			
		2	70.00	0.45	0.30	18.90			
		2	70.00	0.45	0.30	18.90			
		2	100.00	0.45	0.30	27.00			
		2	180.00	0.45	0.30	48.60			
	ROAD	1	96.00	4.20	0.20	80.64			
		1	200.00	5.40	0.20	216.00			
		1	70.00	6.00	0.20	84.00			
		1	60.00	6.00	0.20	72.00			
		1	130.00	6.00	0.20	156.00			
		1	220.00	6.00	0.20	264.00			
					Total	***1227.96***	***119.78***	***Cum***	***147085***
3	*KSRRB M100-1 Loading and unloading of stone boulder/stone aggregates/sand/.kanker/moorum. KSRRB M100-1:Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specification MORTH Chapter 1* ***(P-130, It.No. 17.1)***								
	Basic Rate Conveying for 10 km	*88.60*							
	Area Weightage 6%	*5.32*							
	Total	***93.92***							

						1227.96			
						79.60			
					Total	**1227.96**	**93.92**	**Cum**	**115325**
	KSRRB M300-55. Construction of sub-grade and earthen shoulders with approved material Gravel/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cost of earth, watering charges & compaction by vibratory roller)MORTH Specification No. 305(P-148, It,-19.62)								
	Basic Rate:	*302.00*							
	Area Weightage6%	*18.12*							
	Total	***320.12***							
		1	*96.00*	4.20	*0.15*	*60.48*			
			200.00	5.40	*0.15*	*162.00*			
			70.00	*6.00*	*0.15*	*63.00*			
			60.00	*6.00*	*0.15*	*54.00*			
			130.00	*6.00*	*0.15*	*117.00*			
			220.00	*6.00*	*0.15*	*198.00*			
					Total	***654.48***	***320.12***	***Cum***	***209512***
5	*KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P-158, It.No. 20.18)*								
	Basic Rate	1668.00							
	Area Weightage 6%	*100.08*							
	Total	1768.08							
		1	*96.00*	4.20	0.2	*80.64*			
		1	*200.00*	5.40	0.2	*216*			
		1	*70.00*	*6.00*	0.2	*84*			
		1	*60.00*	*6.00*	0.2	*72*			
		1	*130.00*	*6.00*	0.2	*156.00*			
		1	*220.00*	*6.00*	0.2	*264.00*			
						872.64	***1768.08***	***Cum***	***1542897***
6	*KSRRB 500-1. Cleaning the existing WBM road surface including removing of binding materials and other foreign matter with wire brushes and small picks, sweeping with brooms or soft brushes and finally dusting with old gunny bags and / or compressed air, to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5* ***(P-161 IT NO 21.1)***								
	Basic Rate	*13.00*							
	Area Weightage 6%	*0.78*							
	Total	***13.78***							
		1	*96.00*	4.20		*403.2*			
		1	*200.00*	5.40		*1080*			
		1	*70.00*	*6.00*		*420*			
		1	*60.00*	*6.00*		*360*			

		1	130.00	6.00		780.00			
		1	220.00	6.00		1320.00			
					Total	4363.20	13.78	SQM	60125
	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 **(P-161 IT NO 21.2)**								
	Basic Rate	3.00							
	Area Weightage 6%	0.18							
	Total	**3.18**							
		1	220.00	7.00		1540			
		1	175.00	5.30		927.5			
		1	70.00	6.00		420			
		1	48.00	5.30		254.4			
		1	180.00	6.00		1080			
					Total	4221.90	3.18	SQM	13426
8	KSRRB M500-6. Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.MORTH Specification No. 502 **PAGE161 IT NO 21.6**								
	Basic Rate	26.00							
	Area Weightage 6%	1.56							
	Total	**27.56**							
		1	96.00	4.20		403.20			
		1	200.00	5.40		1080.00			
		1	70.00	6.00		420.00			
		1	60.00	6.00		360.00			
		1	130.00	6.00		780.00			
		1	220.00	5.00		1100.00			
		1	220.00	7.00		1540.00			
		1	160.00	5.30		848.00			-
		1	70.00	6.00		420.00			
		1	48.00	5.30		254.40			
		1	180.00	6.00		1080.00			
					Total	8285.60	27.56	Sqm	228351
9	KSRRB 500-11. Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant 40 tonne capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, 50 /75mm compacted thickness with 3.3% bitumen but excluding cost of primer / tack coat with lead upto 1km including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH Chapter 5 **PAGE162 IT NO 21.11.2**									
	Basic Rate	5306.00							
	Area Weightage 6%	318.36							
	Total	5624.36							
		1	220.00	7.00	0.04	61.6			
		1	160.00	5.30	0.04	33.92			

		1	70.00	6.00	0.04	16.8			
		1	48.00	5.30	0.04	10.176			
		1	180.00	6.00	0.04	43.2			
	Camber correction					165.696			
	25% TOTAL AREA					**41.42**	**5624.36**	**Cum**	**232983**
10	*KSRRB M500-19. Providing and laying bituminous concrete 40 mm thick with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications* ***PAGE165IT NO 21.23.2***									
	Basic Rate	8151.00							
	Area Weightage 6%	*489.06*							
	Total	8640.06							
		1	96.00	4.20	0.04	16.13			
		1	200.00	5.40	0.04	43.2			
		1	70.00	6.00	0.04	16.8			
		1	60.00	6.00	0.04	14.4			
		1	130.00	6.00	0.04	31.2			
		1	220.00	6.00	0.04	52.8			
		1	220.00	5.30	0.04	46.64			
		1	160.00	6.00	0.04	38.4			
		1	48.00	5.30	0.04	10.176			
		1	180.00	6.00	0.04	43.2			
						312.94	**8640.06**	**Cum**	**2703855**
11	*KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803* ***PAGE185IT NO 24.15***									
	Basic Rate	*512.00*							
	Area Weightage 6%	*30.72*							
	Total	***542.72***							
		2.5	96.00	0.15		36.00			
		2.5	200.00	0.15		75.00			
		2.5	70.00	0.15		26.25			
		2.5	60.00	0.15		22.50			
		2.5	130.00	0.15		48.75			
		2.5	220.00	0.15		82.50			
		2.5	220.00	0.15		82.50			
		2.5	160.00	0.15		60.00			
		2.5	48.00	0.15		18.00			
		2.5	180.00	0.15		67.50			
						519.00	**542.72**	**SQM**	**281671.68**

	emoving B.S.Slab of drain & stacking as per specification **(P-25 lt.5.32)**								
	Basic Rate	62.00							
	Area Weightage 6%	3.72							
	Total	**65.72**							
		2	112.00		1.35	302.40			
		2	25.00		1.35	67.50			
					Total	**369.90**			
	Deduct 15% missing slab				(-)	**55.49**			
					Net qty	**314.42**	**65.72**	**Sqm**	**20663**
13	Refixing stone slabs of drains and pointing in C.M (1:3) as per specifications. **(P-25, lt. 5.33)**								
	Basic Rate	76.00							
	Area Weightage 6%	4.56							
	Total	**80.56**							
		Qty same as item No.2				314.42			
					Total	**314.42**	**80.56**	**Sqm**	**25329**
14	Providing 7.5cm thick granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., complete. **(P-25, lt. 5.31.1)**								
	Basic Rate:	628.00							
	Area Weightage 6%	37.68							
	Total	**665.68**							
		Qty same as missing				55.49			
					Total	**55.49**	**665.68**	**Sqm**	**36935**
15	Providing and fixing 10 cm thick pre cast RCC covering slab using reinforced cement concrete M 20 mix with stone aggregate 20 mm and down size including centring shuttering reinforcement and bar bending machine mixed concrete laid in layers not exceeding 15 cm thick wellcopacted cost of all materials labour curing complete as per specification (Data Rate Approved)								
	Basic Rate:	2100.00							-
		1	30.00	0.90		27.00			
	MISSING Slab	1	40.00	0.90		36.00			
					Total	**63.00**	**2100.00**	**Sqm**	**132300**
16	KSRB 2-2.2Earth work excavation for foundation of building water supply sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width in **Ordinary soil** not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches stacking the excavated soil clear from edges of excavation with lead upto 50m, after breaking of clods complete as per specifications. **(P-5, lt,-2.4)**								
	Basic Rate	283.00							
	Area Weightage 6%	16.98							
	Total	**299.98**							
	For flogging course								
	Road side	1	30.00	0.20	0.20	1.20			
		1	40.00	0.20	0.20	1.60			
	Wall side	1	30.00	0.10	0.20	0.60			
		1	40.00	0.10	0.20	0.80			

	PE LINE	1	60.00	1.00	1.00	60.00			
	ECK SLAB	2	7.00	1.10	1.00	15.40			
					Total	**79.60**	**299.98**	**Cum**	**23878**
17	KSRB 4-1.1: Providing and laying in position plain cement concrete of nominal mix 1:3:6 using 40mm and down size graded granite metal machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 Specification No. KBS 4.1, 4.2 (P-12, It.4.2)								
	Basic Rate:	5046.00							
	Area Weightage 6%	302.76							
	Total	**5348.76**							
	Below flagging course	1	30.00	0.20	0.10	0.60			
		1	40.00	0.20	0.10	0.80			
		1	30.00	0.10	0.10	0.30			
		1	40.00	0.10	0.10	0.40			
		2	7.00	1.10	0.15	2.31			
					Total	**4.41**	**5348.76**	**Cum**	**23588**
18	KSRB 5.2-3:Providing and constructing granite / trap / basalt size stone masonry in foundation cement mortar 1:6 stone hammered dressed in courses not less than 20 cms high, bond stones at two m, apart in each course including cost of materials, labour, curing complete as per specifications. **(P-25, It5.6)**								
	Basic Rate:	4187.00							
	Area Weightage 6%	251.22							
	Total	**4438.22**							
	Road side	1	30.00	0.20	0.40	2.40			
		1	40.00	0.20	0.40	3.20			
					Total	**5.60**	**4438.22**	**Cum**	**24854**
19	KSRB 6-1.3 : Providing and constructing burnt brick masonry for basement and superstructure with approved quality of non-modular bricks of standard size of class designation 35 with cement mortar 1:6 including cost of materials, labour charges, scaffolding, curing complete as per specifications. Specification No. KBS 6.3 **PNO 28 it no 6.13**								-
	Basic Rate	5794.00							
	Area Weightage 6%	347.64							
	Total	**6141.64**							
	wall side	1	30.00	0.1	0.40	1.20			
		1	40.00	0.1	0.40	1.60			
					Total	**2.80**	**6141.64**	**Cum**	**17197**
20	KSRB 4-1.6:Providing and laying in position plain cement concrete of mix M15 with cement @240kgs with 20mm and down size graded granite metal, coarse aggregate @0.878cum and fine aggregate @0..459 cummachine mixed, concrete laid in layers not exceeding 15 cms, thick well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. **(P-12, It.4.6)**								
	Basic Rate:	5441.00							
	Area Weightage 6%	326.46							
	Total	**5767.46**							

	...ping	1	30.00	0.20	0.100	0.60			
		1	40.00	0.20	0.100	0.80			
		1	30.00	0.10	0.100	0.30			
		1	40.00	0.10	0.100	0.40			
					Total	**2.10**	**5767.46**	**Cum**	**12112**
21	Providing and laying reinforced cement concrete pipe NP2 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 300mm dia **PNO 252 it no 37.7.3**								
	Basic Rate	1108.00							
	Area Weightage 6%	66.48							
	Total	**1174.48**							
		2	5.00			10.00			
					Total	**10.00**	**1174.48**	**RMT**	**11745**
22	Providing and laying reinforced cement concrete pipe NP2 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 900mm dia **PNO 252 it no 37.7.7**								
	Basic Rate:	3634.00							
	Area Weightage 6%	218.04							
	Total	**3852.04**							
		1	60.00			60.00			
					Total	**60.00**	**3852.04**	**RMT**	**231122**
23	KSRB 4.2.2:Providing andlaying in position reinforced cement concrete of design mix M20 with OPC cement @ 320 Kgs, with 20mm and down size graded granite metal coarse aggregates @0.878 cum and fine aggregates @ 0.459 cum, with superplastisiser @ 3lts confirming to IS 9103-1999 Reaffirmed -2008, machine mixed, concrete laid in layres not exceeding 15 cms, thick vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase,lintles, retaining walls, return walls, walls (any thickness) includng attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills fillets etc, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No.KBS 4.1, 4.6 **(P-13, It.4.11)**								
	Basic Rate	6011.00							
	Area Weightage 6%	360.66							
	Total	6371.66							
		2	7.00	1.00	0.15	2.1			
		4	7.00	0.2	0.75	4.2			
		2	7.00	1.50	0.20	4.2			
						10.50	**6371.66**	**Cum**	**66902**
24	KSRB 4.9-2:Providing **T.M.T steel reinforcement for R.C.C** work including straightening, cutting, bending, hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification NO.KBS 4.6.3 **(P-17, It.4.46.2)fe 500**								
	Basic Rate	60607.00							
	Area Weightage 6%	1818.21							
	Total	**62425.21**							

	Qty @ 100Kg/Cum		1.00	5.25		5.25			
					Total	**0.53**	**62425.21**	**ton**	**32773**
25	KSRB 4-6.4:Providing and removing centering, shuttering, strutting, propping etc, and removal of form work for vertical surface such as walls at any thickness, including attached plasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **(P-17 It.4.31)**								
	Basic Rate	293.00							
	Area Weightage 6%	17.58							
	Total	**310.58**							
		4	7.00		0.60	16.80			
		2	7.00		0.75	10.50			
					Total	**27.30**	**310.58**	**Sqm**	**8479**
									6263050
26	9% of KRIDL charges								**563674**
27	1%PMC								**62630**
28	Miscellaneous & Rounding off							**L/S**	**2491**
	Total Rs:								**7000000**

CERTIFICATE

1. The work spot has been inspected and found to be necessary
2. The provisions made in the estimate are necessary and minimum
3. The estimate is based on CSR of 2016-2017

Assistant Engineer
Project Division

Assistant Executive Engineer
Project Division

Executive Engineer 9/x/17
Project Division,
Yelahanka Zone.

Administrative Approval
Accorded For Rs. 70.00 lakhs
Head of A/C P-3112
CER NO :50 Dt:9/10/17

E.E. (Project)

Technical Sanction
Accorded For Rs. 70.00 lakhs
Head of A/C P-3112
CER NO :136 Dt:10/10/17

JA CE (YNK)